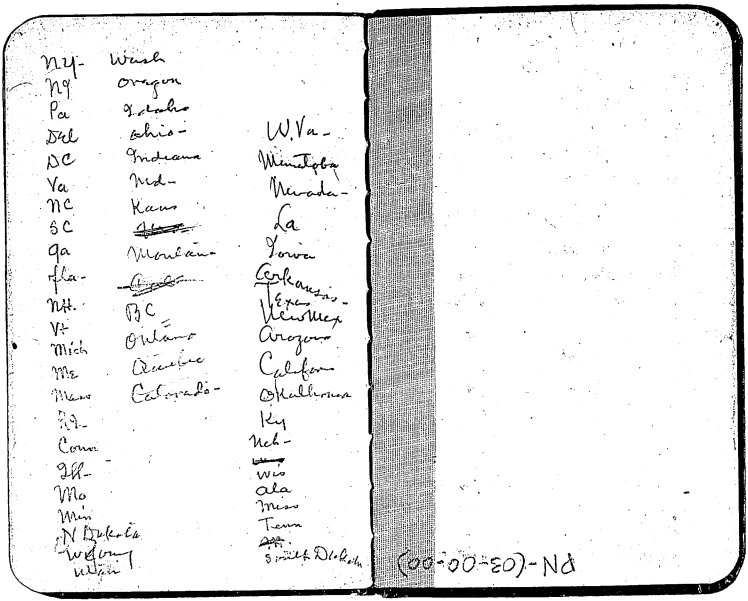
Notebook, PN-03-00-00

This pocket notebook was used by Edison, probably during 1909. It contains notes pertaining to finances, experimental work, book orders, and the supervision of employees. Included are calculations of cement production costs and projected profits from phonograph records, notations regarding accounts to be checked by Alphons Westee, and lists of patent questions to be asked of Frank L. Dyer. Also included are notes and drawings about battery experiments to be performed, including work on the composition and manufacture of components. Other experiments to be conducted relate to x-rays, motion picture film, phonograph reproducers, records and recording, phenolic resins, mechanical amplification, and tints and molds for concrete. Among the numerous employees mentioned in relation to individual experiments are Jonas W. Aylsworth, Daniel Higham, Walter E. Holland, and John F. Ott. The pages are unnumbered. Approximately 110 pages have been used.


Wash
Oregon
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Ohio
Indiana
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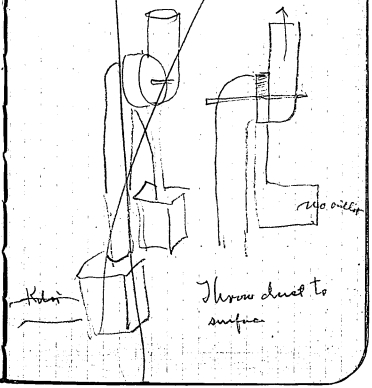
DC
Orleans
Arizona
Colorado
W. Va
Minnesota
Nevada
La
Iowa
Arkansas
New Mex
Oklahoma
Ky
Neb
Wis
Ala
Miss
Tenn
Dakota
PN-(03-00-00)

Holland buy their thermometers part — middle cell 4 mm Lenses, outside LiOH with 2 4 6 & portions LiOH. —

When get home make 3 on 1 machine 3 on another- 719 718 723. see if get alike — little vary the dump + try —

Rogers make 3 big cells 9 cycle clip — best Bismuth.



Charge some 719 723 Lithopone 21% smoke in 5% dry Mix dip in beaker to smooth + clear Ca Glycerate — mark Ca(OH)2 in MgO Crust.

find qual of the chg Ca(OH)2 + dried Ca(OH)2 which is gives best Capacity Brilliant Mass fig ures —

The Rockies of Canada by Wilcox — Putnam Sons

Put H2O on Li tube with 2 LiOH. or look at old Tests see if H2O gives Caller Cap that,

Try Carbd mat'l and LiOH —

Seal of excess Caustic CaBeO 3% will work in test cell

Regenerate by boiling — KOH — distills by running in 3 grams of dil 8 vol % in 21 KOH with Reversing.

Dulles Fruit packing Co Cherries Peaches Apricots Prunes Peaches

18% KOH. 4 grm LiOH. Saturated with BaOH. CaOH, + SrOH,

Try 21 K Strained CaOH,
" " BaOH
SrOH.

dets 2 LiOH in addition —

Try Reg Mus graphite only rod no interest whether vary or maximum weight

Urologh - Try Soldering with Bismuth Sub + Cyclohexane also ROH 21% Ferricyanide ammonia Lioh

Try Fluoride Ca on green in various amounts up to a max + put in tubes also dep tubes up to a max

Nitric Bi in Nitric Chy green only

Dr Q anglers gas from a Chy tube Hydro given off in water

See if Ca Ff in 5% 21% + Lioh Rem tube with Fluoride of def salts - 1% Etc (Bi Ff - green also)

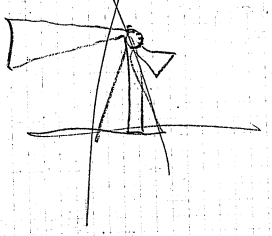
Try Urologh Hot + Cold

Bismuth and take large cell 21% + Lioh + run day time & then draw off & determine Lioh residue to Roh

See if X ray comes from X ray tube (exhausted until no spark i.e. perfect Vac - Try Slides Uphills

Try "19 feather green with Cargill tube tubes —

Turbine Windmill —



1040 Cap ZIR 2 LiOH.

Theory 1

low capacity on cell due to high temp down in cell — Cap is less by reason of higher temp but only part

Theory 2

Green must absorb LiOH. or gradually accumulate from poor circulation or precip out +

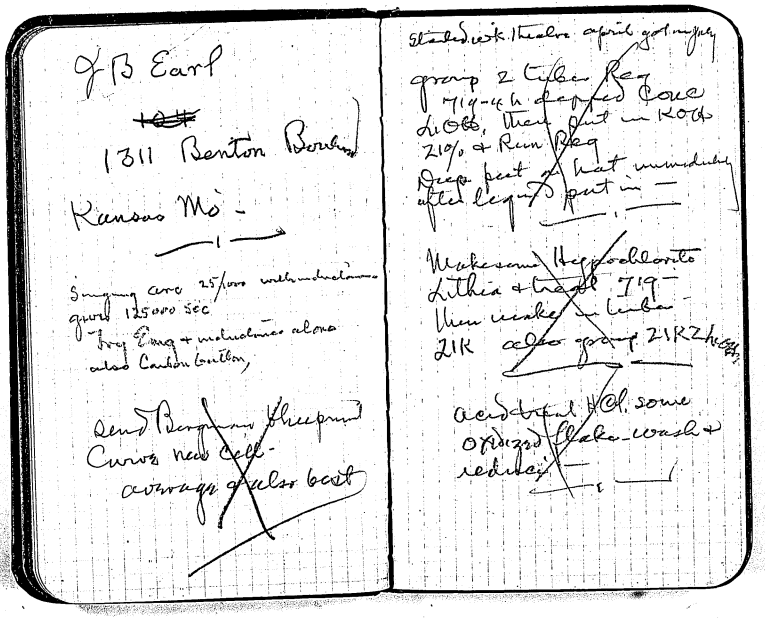
Theory 3 unknown unbalance in KOH, + insufficient liquid To give proper symmetry

Theory 4 Not enough free ions in ZIK12 LiOH.

Theory 5 = KOH dissolves H_2O or X_4 + not being sufficient liquid gives unbalanced symmetry in Solution

3434 Peso Bulevar 35 Th ST

Theory 6 - LiOH cleans nickel Conducts —



J B Earl

1311 Benton Boulevard

Kansas Mo -

Surgery core 25/000 melanoblastoma
growth 125000 sec
- Surg Exam + melanoblastoma alone
asked Carlson Carlton,

Send Bergman Sheepman
Curves need Cell -
average of last best

Started work Thurs April 9th surgery

group 2 Cuban Reg
719-4th dropped Course
L.O.B. Treatment in KC 4th
21% & Run Reg
Drop part of Treatment unmindful
after Surgery put in —

Markesman Hagopodlanto
Lithia + Treatment 719 —
Them make in Cuba
21K acre grant 21K2 Hogs

accidental H&L some
Oxidized flake-wash +
reduced —

Try Lanolin for army Duck
waterproofing — Dry run

Dubbin, also find other chemical Chemical
Hydrogen manufacturer — co-operation
Jobbers to fill in making for waterproofing

dip K4 in Conc Lico4.
dry — dip again & dry
treat from CO_2 then put
in 21% K & dry

Ditto Run — Conc Lico4.
then change 3 of treat in fresh
conc Lico4 rinse again
& then 21% K

Do above on little tube
1st

Stick Duck to cloth backing
by BS also Fabulite using
Viscose — dry Mackintosh
of BS on wet belt
Ditto Viscose —

Try Hypochlorite of
Lithia, Brock Lico4 on
7/19 —

plate Pb in Lico4 on Wicked
flake — 3 tanks 3 cells

R H Beach #2 Broadway
Elephan 6158 Broad
Rieey Bee.

Height Drawn 15"
Width 6"
27" for 8 cells new Tx
new A
Wt 8 cells 116 14.5 lbs

Get several varieties of Grasses from Foote & Cadellon above Water test

Dry Gelatine on Gage do Blotting get some Resin over

Tiles - see if Cement wash Colors by pigments used will work? = 1, 2, & 3 Coats —

Reduce Chl Gold in Solution to get gold powder for shows

Flake neat oxidized Hydrogen only water washed Soc iron & some mix with Sulphide in it To make H_2S mix with the H_2 to Sulphurize the flake — make tube — also some strips Put in test with Nitric Sulphurize over

Sulphuric acid for Lab by RS or HS, dry & redness on Platinum —

When I make the Bi 919 723
Dry and dispose of Bi mix
bath —

Buy Portland Cement (Worried for Castings) 1 to 4 Coarse sand plenty of propane — Mixed with Graphite - Brass or Other Castings Try —

Cement Coal Stove -

Cement furniture, make smooth slab & seal hair & Varnish with Cheap Varnish Colors, also Mottled, all Contoured, Make some more of slabs to Experiment with —

find out how Leigh Enderman when Town mike Coal was made kind of grate & No of flake —

Soak Belt 5 min Hot BB. Cut open first thin - Soak Belt thin -

Get some Bi Salt & trace of Salicin Swell pt 1 into belt, dottle good Yellowing -

Dip 3 bad Ni packets in $BiCl_3$ Acetone dry bad KOH, dry recombine —
dottle 3 same way but recompacted all r — 1 good dish —
put 3 pkts for same grid up without closing cap (— & 3 Recompacted —

Unsaponifiable part of Lanolin to dope bottom of Cells possibly reason

Prunings Flake on Sulphate of Soda fused with which ammonia ammonium & K sulphides is destroyed only enough to sulphurize sulphates also passing H_2S over Ni-Very little effect — also boil with Ammonium Sulphide & pass in Hydrogen before before it Carbonized over Ni.

Ni further not absolutely absorbed in Heat Nitric or aqua Regia.

also pass H_2S over flake just fused the H takes off S over Cu Ni = H has no effect on Ni S — passing CS_2 Sulphur vapors dont influence Ni — Into CH_4 & H_2 appears H_2S over it

Dry passing Dry ammonia over flake 800

Ditto Carbon Monoxide — at 800

When over flake over flake dropped on Ni fillm also in Quartz Hooper see if fusion

Put now oxide flake in rod heat Cyanide & char very gradually to get Carbon in

Ditto flake at 800 pass Coke gas — also pass H_2O dry CO_2 gas, Heat in Vac

In ammonia Sterig, cells, SiO_2 only use cyanide in Cl Clean Al see Sadgr

see if Balal or pulsing miscible with Montagn also gf miscible with BS

Reduce from Nitrate, Cu B, Ag on flake & make test cells

Dr'l about flake NO_3 + Zn flake & go for Ni for Mg deter. Use test Cock at receipt Zn ok test I give him

Halland Reverse at low ratio some of the flake taken that keep low Capacity after 100 pounds — also, set valve tubes reverse low ratio before running each — also new tube Reversed in LiOH 12% Cold also shut before running — also 21 K's studied pour out before running each use 21 K/2 LiOH

Select several cold groups that have gas off reverse low ratio Can get back

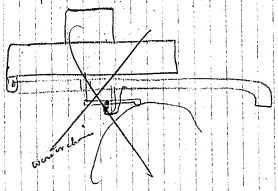
Daily pass dry H2S over flake 800 also Nitrogen

Wash Mallo about putting gypsum fr Rotating

Dehydrate vapor sulphur 800 deg flake CS_2 vapor

Try flake in Mallen's low temp dumped, then dealer out S by KOH, or CO_2 —

Halland Reverse pocket-cell in Strong 12% LiOH Cold at low temp —



Mix Cement grout 3 sec for ½ inch cliff Hot water dry 3 tier collared, Screen through 40 mesh sand dry then add rubber + dry collared on paint —

Take 3 tubes some Cad some force annular rings on

Tubes some Cad Goes 1/16 Make Main dealer apart in springy split tube to make Circuit Collared —

Fred old-Wells broke 1/3 Worm
plunger part worn + cavitn on
stamp shrunk 1/4
Rough then get Kodak
Take bar out put in
NaSulfate + Oxalic Acid
remove + wash acid +
boil in KOH —
ditto new tubes —

Tubes gone bad - soak out on 3% KOH
for week + try —
ditto boil in 3% KOH —
ditto drill 1/16 hole of recess
tube O.K. —

Rogers open a poor 5000 mils
Cell —

ditto Washed in 1% KOH
dryer put in Dakota NaSulfate
One tube a certain time + other
longer time, low density Cu ions
putting at top + acetate of lead between
putting at top + acetate of lead between
+ cathode

Improper set-up Rodey Cabin
Rogers, Inverted that runs at
90 Volts and Capacity

Well, broke at open up
with Blacksmith opposite
No Flame —

Try cleaning acid float pockets by using
Sodium Nitrate, Ammonium Nitrate as amide
then Caustic as strong - If OK
Try plates from bad cells in NaNO3 SO4
and try Dakota NaNO3 Chemicals so as to
get strong solutions

For paladium baths let prepare
the Canvas cloth Muscle Coat
Dakota gelatine, then dry
on Celotex, heat float upon
perhaps coat Canvas with
Dot of Bakelite on cell before
putting on float Bakelite

amount of B. metal/ton 10 lbs
ores on 784 for Bon Jacks is
18.86% Metal/ton 47.85%

Possible Savings 1909

50 lbs Coal		X30	25
18 ft 8/4 cm shovel Rope	X	30	15
40 lbs chalk including sacks	X	8	6
Balata Belt patch	X	25	10
Bumper	X	5	3
Dust for Dryer		1	0
Steam shovel Rope		10	0
75 more cars	X	5	4
Increase output from 750 M tons		30	15
Gypsum		5	3
Use Barlow for part		40	81
Quarry of Calcined		20	
		209	Costain
Air compressor	X	8	
Oct Costs	520	201	57.6
	209		8.9
	311		4.3

add 2¢ Depreciation

311 c

Good bonds value Dollars 50 12.5

Can soak the pockets 2 or 3 times in McQuinn's sulphuric acid it in Orapelaboyd - to clean the work

Patent Kirschbaum Brick Kirschbaum
" Hot air & Kirschbaum Conveying
" Bradley Air Blast Mill for Mineral
" New Coal
" Balata Transmission Belting
+ patching -
Steam Shovel Hammer -
ash Dryer - for Phosphate -

719 & 723 - put in 2 Lots 21
+ Reverse for Roy-arthon
Run very few times -

ash/Hammer/Miller - if amount owed me by workers to
Notes - If they are removed promptly - natural evaporation
Notes allowed to quietness
when upkeep paid

Try am Sul Copper with
flat plate use of Copper and
inside — also
Soak in the am Sul Cu.
3 times + then deposit in
Nit Sulfate —

New
In indicating rem use
1/4 inch rubber pads under
1/4 of the bottom —
also 1/4 with trays on
Rubber balance has
worked —

Get 12 plates old pocket case
Soak out + only leave
enough KOH to prevent rust
Then assemble + put in
21K 100 grms KOH.
Low water ~~cooled~~ —

Possible Chance of Increase in
Peroxide by 200
Sapphire tops inside

Try Gulsbury plus Gulsbury +
Bismuth — V ~~good~~ Good Coating

Ring up 2 7/2 + the old pocket
plates with Bismuth — for
Holland to test — also
another, to reserve before
charging —

Try clean old plate in water
Slightly KOH, also 21/2 KOH —
also with ~~KOH~~ Bichl Hg in
Sol to give Hg amalgamation

Clean an old plate in
Ammon Potash Sulphate +
Hollands Resin —

Clint in Ballou grooves
of 4 mm Uhal number specimen may
62 due to plating pulling off
or lumpy graphite - Compare
1 = Lumpy graphite
2 plating pulled off of preparations
3 = Way to study the unmixed undercut
surface due to graphite plating —
4 Remind Tim Hunt
5 Twist of electrode in reaming
6 Sapphire tool dies
7 Method for cleaning in plating - moved not cleaned
well enough —
8 graphite paper plate granules on it
prepared by Linder —
9 Under distilled water removed wax graphite
chlorides unpolished Tin Monsanto Mrs
Phelps wash them —
10 Sub Negative pressure Vacuum Gauge
11 Dr Ney grounding wax not cleaned out
well
12 not always easy to pull out without stretching
13 Don't forget on records after annealing
coppers are at risk on surfaces of brass
Hard Sapphire don't force them in wax
gently but steadily up —
14 = find wider holder

Try also product with $HgCl_2$ in it
in solution of Chloride Magnesium
a Magnesium Electrode —

also $HgCl_2$ in paste + Electrolyte
of $HgCl_2$ + Magnesium Anode —

See Dodge Allinach in about racks
a solution for drying flakes

also list of results with trial cells
of flakes —

See of Bi readily oxidized in 21KOH, also
21K 2 Li OH.

Daily plating not of flake with Bismuth
Make test cells - some thick some thin —
Can polish from acid Bi or break a
Crystal from large chunk —
use Bi Cl3 Nitrate sol - various strengths
of NH_4Cl — Expt at Graphite —

Bi plated flakes + Inks plated Bismuth
with Bi - Well mixed 2
cells —
cells with Bi grown a Reserve cell
to reduce to metallic state

Dip Reg tubes in B_2Cl_2 MeHgCl + then put in Et Analyte of MeHgCl - make Eight Cathodes
No anode diffic Magnesium

Make 2 tubes with Bromide system + resource at 30 mil amp in 21 K 2 hOH for 6 hours
to deposit Pb electrolytically on it probably also Cadmium -
~~also~~
Another with little $HgCl_2$ in tube to make an amalgam for growth will be coherently plated +

Holland see if the experiment Expt Cell work with 10 gms in that run 145 Etc cell & count up if 105 grms hOH is now added -

220 @ 240 push

1/2 mm Ni
1/2 " Cu
2 2

Copper 35@40 Vol 200 cm
Ni 45@90 " 200

Current of 200 amps on acc Term & Rec used

Check amps & charge Explain Cathodes Blend
Blend with Blend time on Grass Pad
why the amount used for that Blend
Carbon Cause - Run first part Empty

Job - why did you stick Cu on
Reason what will work in the groups of
a mm Cause into us grind down a
coated Cu rod the remaining pc of
your choice -

Topic film - 6 of 8 Thumps
on 1 would film on a number
for instance:
Brand Line
A Tonne fine
Left at goal
The Rt deadcat of -
Storm at Atlantic City -
Daylight Robery on way to Court
Etc add for 1 minute -

Ellen
see if Element Cd as precip
in water with Benzene put
over night see if
dissolves

Try Acetyl Cd in Hot Storrie
till acid used gone

Put HgCl2 on wedge in 2 tubes to reverse in dil. soln 2 KOH — low rate long time —

Clean old pocket by HgCl2 on KOH Electrolyte — 4 tanks 66 clean a 500 gal tube —

Heat Electrolyte small coal coffee 1 2 3rd 50 Rm for KOH —

723 slight mixed graphite 8910 to 8920 RA Number — see Wingfoot Lake Nov Longer Number —

Retest unkept Confirm Wells Report 723

Lead 33/0 + 10 — Notary of Electrolyte on dead Commercial 3.33 per cwt

E 7 34 " E Renewal at 500 3.33 per cwt

Will the lead last 2 yrs without Expense of re-charge than E.

Station 20000 KW hours 9 pm till 5:30 am — 1c to 1½ c KW hour

Frances Lincoln Cement Co Lab 126 W 3rd St NY City

Daily — put Nitrogen at 1 atmos pressure and put Lamp in bulb — get high vac 6 silicon bulb — run Lamp high 32 CP — 4 yrs by others cases —

Fred 011 press green in Ni Cup Juice as thick as dup. shave off Hush + put micrometer disk over surface 20/000 thick with 1/32 holes in it clamp it + put in Micro in flat disk in KOH 21 + change —

Waller make 3 Tubes each 719 723 734 No 20 flake — but 36 mily green 6 mily flake — ditto 50 mily green 6 flake — Change ½ rate in 21 KOH 3 KOH, during hot 130 change 004 to fresh 21 K 3 KOH — change again ½ rate cold + 4 cycles hot 130 at reg rate run 3 times Cold — put on hot test.

3/4

Rogers cut flakes ½ width ¼ length for 10 test tubes —
Make 2 tubes 719 723 with these flakes

2 Tubes 708 30 f
look at the flakes that were accompanied by sound
Heat run 500 watts 5 m 0 s —

Take both tubes down one 5 ft drop hammer Kills
wash, dry ½ rate Dry thoroughly twice, then run req

723 in plain 2 dry ½ cold does not req rate
twice, no Cool, twice
723 dry ½ rate - 21 ft 6 d 10 M does not req rate
once dry twice

Green with Li F ~~X~~ paper very Kills well also
" Lithia phosphate more
Clean out pocket in ~~X~~ H 6 ½ Cement
Daily make Co(NO3)2 Ni 6 ½ cement
Grind up 723 in 33 ⅓ % Lunch, dry, + percolate

Remove wire from 8 dips and do 10 soaking and
dry in tube Remove + make new tube
Little flat plates

P Ask Wallace how much paper we discontinued

Buy dog books like this

Ask D V Miller if he can get me old drill room

Use Port on Lipscolone

2 Tubes 723 without Wake - dry ½ F
21 ½ 4 L 0 M dio Reg rate Hot 4 times

Holland Reverse Re tubes dry H dio C &
do just opposite to same number runs

Holland run old Rodgers Cell 21 K 60 L
¼ rate Cold - Very cold dry dry hot,
do it twice —

Record that electrics of 708 719 723
734 with 16·8 % Bi in part — water
softest (second to record) 708 next 719
next heaviest 723 + 734 Bi scarcely different
16·8 Bi Wetter at together — 21-708 5 min allow
20 seconds

Bi 734 in little like others previously mentioned
float (is pieces flatten —

2 tubes 723 Record in Koth 2 hours
washed out in distilled 20 minutes four changes
keep thermostating dry 3 then dry N dry + run wet ½
dry 3 times, dry ½ rate Cold twice Kills Koth in
2 ½ rate Cold 2 + 1 Cycle —

2 tubes change ½ rate hot, wash out
dry, run 5 cycle, twice 10 times - dry -
dio slightly hot - req rate - twice — 5 cycles down

2 tubes 723 dep 33 ⅓ % 4 ½ hour remove
part 21 2 ½ dry Cold ½ rate dry dry hot req
rate, twice, then 3 times req

Dip 2 tubes Conc Lith 12 ½ % Rod, 10 mins
remove + part in 21 K 2 ½ ½ rate Cold
dry dry Hot, twice, req rate, Run Req

Dry + get Wallace Green, Nuvo from abroad

Do Xge - dry up Run plating Nickle
How about Aqua Ammonia —

Johnson if he will Too weak use steel ½
shell Cadmium only

Speak to Maitland about EMF nervous calls
on change over - if EMF certain confirmation any
frequency of fraction. Then amendment is forward
Cant in mobile section, then they get a
particular EMF in day Cally Calls Watt best
(i.e. 167 V or 1.68, any thing above than
forms second any reading, 1.67 in drawing
of KOH, if Corrupt work the
filtrorum iron in wood when permits.
higher if bamyard's pretend secondary
reaction —
Try fluoride Retina in pores

2 tubes 423 chg 1/2 rate / 21K3 LiOH
dischg hat req take — then charge
again 1/2 rate, remove from
charger + dry 4 hours on
hot plate 80° on 21 cc of
glass board on plate, then
put back on cable +
dischg - then run req

Dep bat Chg 1/2 rate
remove from charger dry
on glass put backs
disch hat req then run
Cold req

2 tubes Charge 1/2 rate / 30% K 3 LiOH
Cold — Soak out in weak KOH -
6 or 8 hours — put — 21K 2 LiOH
soak 5 @ 6 hours — dischg
Hot — then run req

2 tubes 1/2 rate chg 30% K 3 LiOH
tanks out of cell dry on glass
on hot plate 3 hours —
put back in 21 KOH 2 LiOH
+ dischg hot req + take
then run req — cut acc —

2 tubes 713 Chg 1/2 30% K 3 LiOH
give to Edison after chg in 30% + 3
he will put [illegible] Rod
+ wash out — then to 62 run req
in 21K 2 LiOH.

2 tubes chg 30 & 3 1/2 rate
soak out in weak KOH ~~[illegible]~~
dry on glass on hot plate
give to Edis put in Commons
for formation — dry —
chg this req

8 holes 7/23 to Edison

of these 2 holes dropped water 1/2 hour
dried 3 hours test plate right in
Continual with plate Rum Rly

2 dropped water 1% HOft. + dried
2 dropped " 3% "
2 " 6% "

to a dip 3½ rails Tecky Brook
out + prof unlimited Mt Nbly Mt Ctly
Hotellin alone today 220
Wm discharges — Rum Rly
Output of various companies
in Mt Sov.

get 3 Copies Conveyances
Nov 1905 — get that House in

Hotels now under Cockerels
another example in
Koff. Penbroke Vanarsdale
to prevent repeat —

Swab 2 holes 33% heat 220
for several hours Jerry + work out
ditto Conn Koff. today

See if Dodge has got rockers up
for Driving floats
about ready for new Bentley floats

Dyer patent about to run off
using Sapphire on 200 thrbord —
heard

See if Trial Clay seam in No 3
Crown D&HW RR + how wide —

How about standard about 1 foot hill where
fall of D&W commences Thin mined Lope 30 @ 60
ft and at 1 level stopping to come upon out
Shaft and Crosscut 3 boards caved about after
Shot shovel 100 ft in —

To Coal Ri Jelly Machine should
take 8 holes to run 3 times
last time dyn used should be used
of even fullness —

If Cant get back the low holes
from 5 to 6 call — drive up 8
Soak out 1% + Saw it up 7
2% — more see if will work out

Dodge Rogers Ridge coal shrink
not strong enough —

Remove another 5 or 6 plate tubes
+ Run them Berg + Clyde + dun hut
Etc – Have count get blocks Cut again
+ Micro + Cut good tubes for
Comparison –

Evidently dry grinding flakes + grease
Cause of much more dust in Cl Dump
(12) dumping in tube before dumping
Run last Exports on Changeover
Conductivities same for 7 tests
Then variations up + grease acts to stop

Try briquetting 60% magnesite
with Portland Cement –

Monell metal for cans
probably be cheaper in the end

Tackle up Tanks catch Ni + Cu
from wash waters –

Coat Edison Chem plate 40% pearl Fe
$Ni(OH)_2$ – 40 C ell
Fe mix 3d
Flat cap mix 40 C

Tell Dodge preference old plates
take out + strip in Cl 1200 cc
Usually Cans strip mix the
mix + use again –

working yield for anodes Cooperation
from Lincoln Cadmium –

Speak Dodge about Gage test for toughness
of flake –

When get more flake have
Holland form + run till already
Then change full + heavy
Changes 1 run week 1 · 2 weeks
1 4 week 1 2 months
1 6 months then develops
+ get losses for RR salvage
work –

Walker make tube rows
Cut flake not 4 or 5
+ open tube see if springy
Etc + for sides –

Ask Dodge Wow House
Coat Ni with Mg anodes
work -

Try mixing with water carbonyl
Balata - Benzol & gutta
Oxidize iron mould prevent stick
Coat Gelatin - Cyanine - Carbolic Soap -
Cleanse and Mount - Viscose -
Sulphuring confectionery
Try fine colored pieces - Calcide
in Colorite carbonyl - fume ammonia
Melting - Up at 1 hour for bags
Compression test chisel
clean mould as Cathode Cobalt -
Cadmium in Ferrous Sulphate -
in testing flake by opening
tubes Charge on 9668
2 hours, soak water 6#
1 hour - dry + 6#

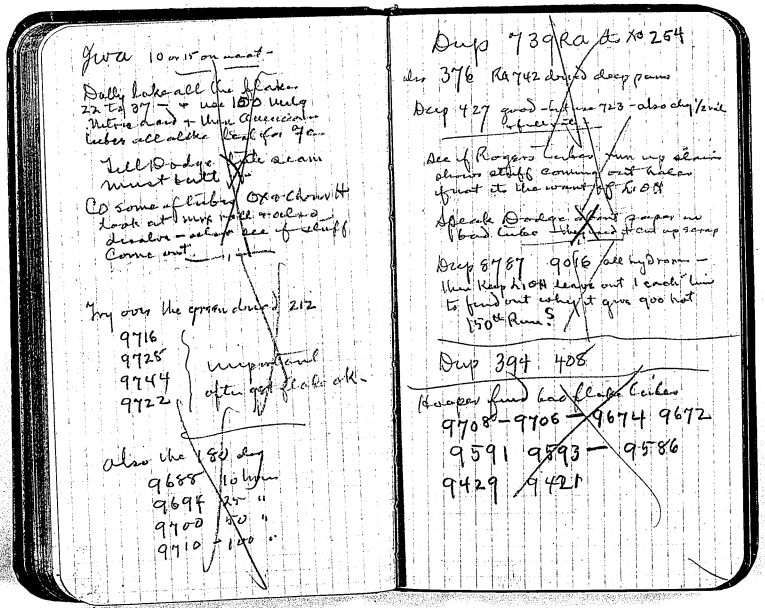
Set up 719 723 Sheared
Spongy flake 21K3 Ki
after 4 turns change to
21K2 Li 8 Rings 10 Rings
+12 rings - 2 Flake

Test by opening tube made
this way before putting up -
devised a test for almuth &
Elastically for new flake
Slugs after assembly to
bag shaft in strip -

Grinding work up Beat
surface - Balata -

after testing flake by opening
tubes Drop following

9668
9754 3 Each
9722
9716
9710
9084
8628
8727
8805
8822
9172
9304
9373



GWA 10 or 15 on mast -

Daily take all the Snakes
22 to 37 + wide 1000 Mulq
Nitrite, Lead + Urine Quantitative
Tubes all alike Look for 9716

Tell Dodge to the steam
must build up

CO some of Tubes OX + Chromate
Look at mud, mark + color
discolor - change see if scruff
Come out.

Try over the green deep 212

9716
9725
9744
9722

important
often get flakes all -

also the 180 deg
9688 10 higher
9694 20 "
9700 40 "
9710 100 "

Deep 739 RA to X0 254

Deep 376 RA 742 dry 0 deep pans

Deep 427 good - Lift from 723 - also dry 1/2 inch upper set

See if Rogers Tubes turn up steam
always attach coming out when
you put in the mud top to 0 8 8

Speak Dodge about pumps no
Bad Tubes Lifting and Load up pump

Deep 8787 90 16 all up Drum -
Urine Ready 10 # leave out 1 each time
to find out why it give 900 but
150 # Runs $

Deep 394 408

Breakers found bad flange Tubes
9708 - 9706 - 9674 9672
9591 9593 - 9586
9429 9421

12

Take No 12 Bichrich dens 30 of
Oxhead tr run 1780 on
150 Rem – Tree of Length see Pulleyn

also No 9920 wheels 29 of
Oxhead crank 967 on 150 Rem
Compare rate & stat. record –

Speak Wolley Miller Cake Sophimmo
Singer 22 ors 11 mins play gas-t OR

Speak mason running gum further
in furnace, thus heating hot air
pipe + entry case 2 or 3 ft of furnace
or chamber, Some absent & running in any known.
also position of Engineer or pipe to closed pipe

Dodge – Keep draw no H flake
plates seperate

get Data from Dr on Anodising
Coffer

Hammy Ltd –
C Shaw Trowbridge Co
Midland Air Cor
Bournewide Road
Moseley

See if Comparison of No
12 have swelled –

Reduce some Gas Tubes by
Surgical – Soak out Surgical
+ Ether change 4 hourly
Double wall + see how
if no block goes on +
is soluble by Liquid –

Filament Coated with Oxide
Lithia coloured on real
Irreducible by Carbon

Expt with % of
Manganese in Rubin
to discolourize Cement
like Blue glass is
discoloured

Exp with feeding tubes

dumps grass / clean flakes

1 = clean tubes —

2 = more long tubes in index case
but round on - longer index (1c)
more range - + tube weight

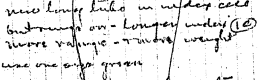
3 more one exp grass

4 = Set grass down in long column

5 - use 24 - 5 flasks —

6 Vibrate grass feed —

7 Try the 40 sec flake it dont
@ spring back 104 may spring
up + shake back in place

8 

9 = glass dope mixed tubes clean threads
clean glass dope on a tube, dissolve out
2 1/2 —

10 Tubes longer leave out

11 glucose tube —

12

Morgan - white Portland
+ white pumice for Casting
Cement —

Kauffer microfilm new
teal - 1 day 2 3 4 5
6 + 7 day under coat
Cloth Blacks and
dry teal Bronnells
5 and only 1 to 3 1 to 4

Put flake as per 6 are light
10 @ 2 each + shaking
melt wax for dipping
raises it up
or 2 large 2 drawers +
stirrers ox to make a
plug + then filler & comp
it heat or blow air thru
for water

Daily use of Monell Kodaflex in
ring area Col Complete out only

Use Kerylon, Union Africk Organic
Schottle white Porcelain + mortar

Rotating arm

Use afresh because of the reaction
Mollin work

change in Conc Ba Sr alone last

13= ~~Same~~ Use bottled or ample heading
for grassy 20 about come off in drying
angle as sub. to clean down tube —
14 dittle flake with little dilute clear varnish
15 Unsqueeze end of plunger —
16 - Make the tube
17 Mounted mould ~~may~~ using vaseline on mould
draw flake to scale —
18 Flake 1/32 wide - 1/4 long
19= Dried green - varnished dried + also immersed
20 tube with 002 Polonium 4, Rn at 2 1/2 after
soaking out 1 1/2 day for Saturday
Mon Obs —

Hooper - Lake 5000 tube, charge Cold Rain
put on wet for 6 hours after Thursday
+ Friday —

Dry lead cell with K_2SO_4
Then the Pb will form anhydrous $PbO_2 K_2SO_4$
Possibly a $Pb_2O_3 K_2SO_4$ + not dissolve
in the Electrolyte = PbO formation with
Sulphate Ignition cause tube crack

Sulphate

Sold Holland about 50 g Scammell up of
3 Rum 5 at 1/- + Ba - pitch in charge
to Koh when run Cupreous Hydrate of —

21 Rattling Tamp rod Ample

22 = grind more off then increase clear
plunger - stay ground off 002 of 1/2 +
increase plunger 2 1/2 5 =

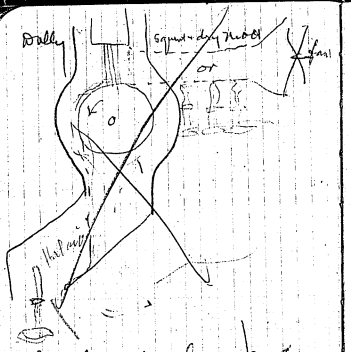
23 Holen plunger - off no down when -
Tamping Flake only to throw flake to scale

24 = Hollow Plunger - 1/32 in wire permanent in tube

25 = Strength Tube - Cap only but wire of wings
then under pressure — cable strength
tube with very deep joint —

26 = Run Upon in Oak to open seam about 1/2
mark in 427 when vase what increase
mould clear —

27 see if 10 # reduce Pb from Rod
ground —



See if powder filter can be stuck on bed by dry nutsch or in Vac. heat of chloro
minimise for isolated in acetate compd.
Try believed dry Electrode & Current also emulsion of acetate compd in mineral washing

also Soak in weak KOH then Comb. with petroleum & semi. dissolve filter then acetone with
Try Vacuum over it - formaldehyde
Bakelite - Gutta A Royal - for petroleum dry as can't be porous

Rum one on 30% - High charring pts
20% recc if bath also heat for 6 day
Little but enough -
Rogers Oxidys after plate by cell

Museum - about Belt Test.
Wkg rock for Anchyroo Bridge Maker or
Drawings for engineering Museum
2 Impounding Stopping Locks -
Bridge for Canada - Add Bridges

In designing new pts Fellow have small Tramp Jetty when Pts Fellow
Eric Dodge where Rogers with outline
Approve in hearth Report.
Bridges - Chg Engineering Pts removed
or A4 road Post Cables -
Weekly report - leave out
Construction

Wear of Sapphire Lampblack
are good for Ebonite

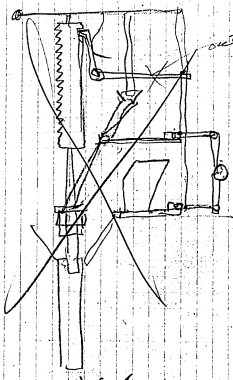
See how Pierrason does regular
work & design Needlepoint
for Broadcloth so tools must not
This one - going to spoil records

on electro teel on Splat plat
use a buzzer to adjust
adjustable pivot to
Metal work & Jobs

Drill to Sq. nut 1/4 1/2
of inch cut1 nut off 1"
long thro - dry - in 212 Cu
Bath - for 24 hours -
then grinder & top for Governor

Examine the not of flakes noticed
by between the 2 Expert & the 2
worst - also the Oxy-Hydrogen
strength garbage dump
Crushing & Breaks

John Att fix rod to [illegible]
to pack in Glass tube
& stop other work help me



Get a Drum Governor from Ingram
Wilkin

Chairs ready Tickets ½ rate Cyclists Comp
Bar Bill, Item dep in Sulphite soda to
precip Baboq in powder
ditto after dis dep in B.C.S. NH4Cl +
ditto in thiocarbamide —
Toy changed dis in Cerne Bar Bill had
sold thumb 17/6 Bar Bill

Weber leave Sophisticman.
test his Comb Sophism
by Sachsen Cell Sophism
at Schwabeln Rabby

Dyers information Bureau
Connected his offices phone
& telm — All Newspapers
Cuttings — advertisements Via
Col & Offices —
No men employed Vancouver
Exhibitors wanted —
Specimens — Exports patent
talk inquiries — Also foreign
advts Gramophone Co

Waller about Electric heated rod
just beyond recorder Knife
Scaffolding Board last between Gauge
+ Knife —

Wadding John Oil Guard
bench specimen for new record

Hix one graphing on casing our
reader points —
Weber test accelerators by
jarring phone — adopt Gent form

Dyer scheme + Greyfield reasons
+ reader put out —

What regards from Raffaccc
Shipment wanted Brant-ccc
Chicken req —

Beam — fillet Chew pressure stone
running cover to remove
impurity —

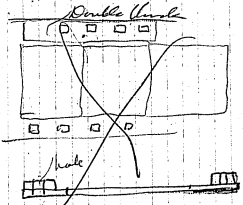
Dodge — straps good width
+ break with short pull
test strength of flakes —
also test out Copper from
straps test repeatedly

Worth Mann & Mrs Neille
come over get proof changed
to Mushroom like profile of
Beach house —

See if can put Cupric sulphate down
to clean the gelatin on film
get good removing of gelatin from
film a big help if down film
by exhaust end in old Kodak tubes
glass —

When flow over emulsion
does darken the NO from film before use

Daily Export on Discontinuous
sides of film when have
are by old film cut to
suit gelatin removers
by 11/2/804 or 11 each ab



Get some old tubes never used
down in Glenn room
cut open see if Columns
Graded — —

to glass Cracking Columns
dry some 739 — glass

Mon 30 times will in
possibly the bad vacuum leaks
main with Kinks cleaning
Flasks, glass tubes + pumps
Breaking of Columns
Get from Dodge tubes with new
seam — improved

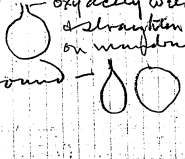
Dyer get from Brighton a body worn out film —

Hooper Hall with a collen figure out pressure on lamp in London by hand on doing all the work in 003 of sec

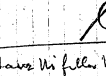
McChesney - use a lovely photo Monthly for stage exhibition in Evening at house - leading the Young people to run it, leave it day w/e —

Dyer Centurion manager to have some contact with the marketing so that when any Competitive stands he may find market, etc —

oxy acetylene weld tube & straighten on mandrell to round —



Dee how the tube worked that was only tapped



Hair Mi fillen Mi Dr Gunn lamp out 10/1000 Rhodr + spider a 2½ Rd + 2½ 2½ Convert a tell worker shawbury make 1 cond + 9 sp spider.

Ask Dyer ab A Polanchi patent cobalt present to use sulphuric acid for —

qwa Russian Chemist work on Selenite —

Drill acc foam fill up holes in fabric —

Try ½ wt% 3 times then heat Lost 2 OH using Cobalt hydroxide —

ditto $Ni(OH)_2$ - $Bi(OH)_3$ -
$Cu(OH)_2$, $Sb(OH)_3$, $Sn(OH)_4$, $Zn(OH)_2$
$Ur(OH)_4$, $W(OH)_4$, $Cr(OH)_3$, $Mo(OH)_4$.
$Cd(OH)_2$. Sulphur & Cerium both cannot be taken from pottery like sand

Dry 20/ins rounded 245 dia

Dry a thin clock tube 0035 acc of Crooks with Rey 20/ins rounded 237 =

John Watt - work out continuous drying question flakes trapped at Company's also warm up time of lamp to get good drying

Rogers flake some flaked pieces rumbled into tubes, were rumbled wi to get stiff so don't attenuate -

Dilly - get some good Chuck Thom dry in V-cones & Cultural heat.

Jwa speak of flaking of Longbeach Cutting Papers - 3 Thick & skewed to skewed = two people with plenty 2 hours daily for a year or two will come in when finally records with Mr Watson

Try Dron Cutting & Flaking on Cmc. 2 Lot. acc of Jeo's formula & etc. etc. for bathing Try a tube with flake for after dry

Daily see if Zipfs plan and on Magnesium from a solution of KOH & Silicate KOH best preparation get from Hastings also try LiOH alone & LiOH with Silicate LiOH -

2 tubes Ecol 16/8 Bi - 1/2 rate Brass then change to 2/1 run to dump heat

ditto twice ditto 3 times -

2 tubes saturated LiOH - twice 1/4 rate, change to 2/1 Run to dump heat,

ditto 3 times -

2 tubes saturated LiOH 1/2 rate but change twice as long or double charge - do it 3 times then change to 2/1 + Run to dump heat

2 tubes 1/2 rate with Silicate LiOH & 3 times extra LiOH 3 times, Check KOH 2/1 Run to 1/2 rate heat

2 Tubes ½ water 3 times —
2 almond 2 oil
Empty + wash 24 hours —
2 H2O2 Empty + wash
again 24 hours Empty
+ put in fresh 2 gr
Rinse & dry hot

2 Tubes — 3 ½ water
2 almond 2 oil
6 grm evaporated
Bismuth Hydrox + oxalate
Cell — Empty wash wet
put in 2 H2O2 rinse & dry
hot —

6th = 2½ wet 2 lb wet 1½ wet
1 lb wet — Rounded Edge
plunger

Dyer Hydrosieving
Difficulty to get
Steel ends —

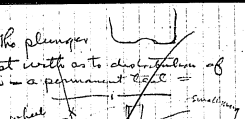
Dyer which grows
repeat point
also Urea dia —
Hex graphone on our replas
point

Dilly Dy Gomeka wants
worth Lot Na_2CO_3 =

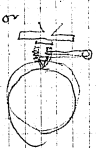
Dyer Dalbergia Cohy
Wkg never get out
out rather to order
least + profit thing
seperate — Thus
a person can order this
cleaner —

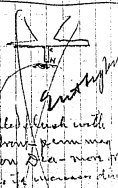
Carry a funnel
with rod any
adapt to
Strike Cans

Save the plunger
To test with acetic dissolution of
green — a permanent dye ? =

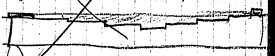


or





Johnsell Grain moved
for film dope diaphrm



Make 5 mm thick film dope shell
say 1 2 3 4 5 mm
make up clear section
thick in wall cavity &
and a Common for both
for film rubber thick
Rubber ring on
projection 4 mm diaphr
+ Cap Chem —
Smooth border + large
Easy amplitude by
into Gauge, Leverage
50%

When good Lubo
change to Saturated
Barium Sulphate def Lumps
1/2 of 1/4 rate Sulphate 24 hr

Try Cyanide Acid plunge
Red Hot 20 minutes or
plunge in slowly
Cold Brine

See if H_2O_2 oxidizes Calcium or
Aluminum makes it soluble
in Chromic Water - Formaldehyde
Hydrochloric Magnesia - Lime
water —

Try Saturated $CaOH$ $SrOH$ $BiOH$
$BaOH$ $BaOH$ Thallium OH $PbOH$ $CaOH$
Mg OH $CuOH$ $SnOH$ $ZnOH$
$Mn(OH)_2$ all Sat hydrox
without KOH 1/10 the
with 20 times Copper
Clamp Sat + 21K in
6 drops heat — all about
To right angles of light on
ablation a good action in 6 drops/10
minutes —

Do the new series —
Sat $LiOH$ Sat Lithium $\frac{1}{2}$ +
$\frac{1}{4}$ + $\frac{1}{4}$ + make again
21K 27K + 33 KOH + 42K
Runs —

put in Al_2O_3 in a cell
in which green is all
combined with $LiOH$
+ $BaOH$ or $SrOH$ + $LiOH$
alone —

Write Midland & Ruffel about my
Gypsum mined in Genesee Co
NY - at Cayuga &
at Fayetteville N. Y. run 70 To
90% Gypsum — with 10 To
10% Coal & Lime - mills are
Oakfield Plaster Mfg Co
Oakfield NY
O. B. English Plaster Works
Oakfield NY Distr.
Big Four Plaster Co -
Value of rock given as
$1.30 Ton = Lime mixed
Plain -

Make some 7.9
½ sat Bi or 9.8
1/4 4.65
2.32
1/8 Bi to ½ rim ½ alkn
rate sat LiOH little alkn
tubes.

Also run Sr + Ba
saturated w/ hydroxides

Run 1.8:6 Bi ⅓₀ rate
in 2 N KOH. as probably
does slow rate
also see if Li takes place
LiOH —

Dally to dry formally about
212 calcined Baker Mgch
about two ounces
Remove all walls in
finely divided carbon
is great saving 240 hrs

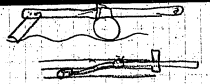
Dally Make some slurry dough
in Cylinder + pestle mortar
bakes + dry at 240 for 6 hrs
also with 1 of Na Carb —

Work Sulfides polysulphides
Cadmium Vulcanizers Rubber
Try Cellulose Nitrate sol

CeO Ce_2O_3 CeO_2 + Ce_2O_3
possibly with tubes
LiOH Compounds to work

Dry the Ce Salts
Put LiOH, Pass CO
Series with & Rings

Dry Tubes w BaOH
at Boiling to get
Put in 250 hours
Put in Ba(OH)2 to OH
Saturated Cells with
Tubes — Dilute with H2O



one record drip outlet a Grooves it but deeper

drop from weak Record to longer record at higher Velocity

(with hand) off — almost in a very soft Mill Emic —

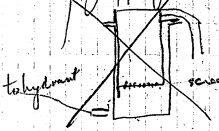
From the duplicated Record which is to be 2 or 3 times louder Make Masters —

guide groove with the second part to guide stopper rack — Record shown —

Long above cut in Florida

When get to Florida get bed very good French Horn by Selmer to get free Clarinet — Then buy Bassoon to double on from Minneapolis for flute

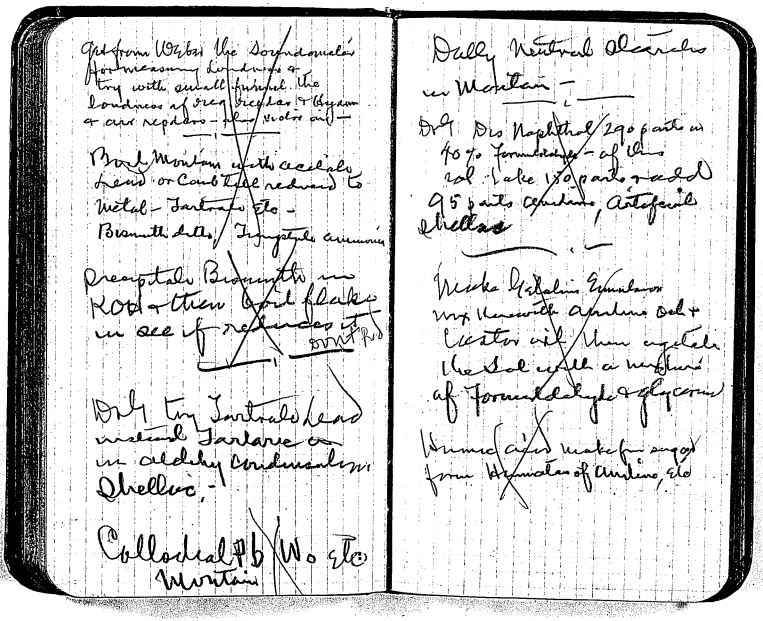
Dolby Jig for flats



Dyer, Walker for 4 wires on 2 mirror threads Double speed —

Rogers prepare some green films in big press right moment Mozart

Yadoff



Get from Webs the Soxhlet tube
for necessary fittings &
try with small funnel the
Londonese of Prof Dreyer & Ryan
& our results - How works out -

Boil Montan wax with acetate
Lead or Cuprous Acetate reduced to
Metal - Tartaric Etc -
Bismuth salts / Tryptophane ammonia

Precipitate Brought in
KOH & then Boil filtrate
in see if reduction of

Dry try Tartrate lead
mixed Tartaric &
in alcohol Condensation
Shellac -

Colloidal Pb / W. Etc
Montan

Daily Neutral Acetates
in Montan -

Dry Dis Naphthol 290 parts in
40% formaldehyde - of Ch -
Sol Take 180 parts add
95 parts Ammonia, Antiformin
Shellac

Make Hydrolin Emulsion
mix Ammonia Acetate Sol &
Castor oil then agitate
the Sol with a mixture
of Formaldehyde & glycerine

Dimmer's Wax make from soap
from Hydrates of Ammonia, Etc

Dilute Soda 6 pts glycerine 1 pt
Red Lead 3½ pts
10 pts — (be S.G. [illegible])
well mixed Wash the Red Lead
inst mutter to a putty →
steam sets of tumblers —
to ward proof —

pour Humate Ntly on to iron
dilute HCl. get finely
divided Hydrate for
Mortar in place Lamp black

Make from Very fine Copper
Metallic by reduction
with Zinc (tubule shreds)
or Aluminum + use in
Mortar to get on
Metal surface by
Centrifugal —

Reduce Humic acid for Chamber or
from Sugar + HCl + by Ntly hydrosulfuric
[illegible] — or free Letter pb impl tanks
Mild Caution

When get Gla Make 20 Lbs
or More Ammonia humate
filtered dry + ship to North for export
impl stand way formerly by alkaline
Try Humic + formaldehyde also
with phenol or carbon add

5 cc Conc HCl 3 Ntly cl to 500 cc
Ntly cl — use 50 cc of sol to grain
flake + boil and test sol for
Ntly; also muller sol heat
lukewarm 2 or 3 hours as dil
before + test D.S. see flowsheet make
both disposal —

Buy Gyp Make 25 Lbs of
Gentiane Phenol Formal
Product to Export with
Sand solvents etc to toughen —

Make some pure Gold BS & see if it will mix with Water or Formal Indic & Acid & compound Copper Complex —

Try Shellac with Formaldehyde & gutta - Balata & gilding Cuticle —

Formate of Pb with Acid only Dob in water S

Have Hooper Type a Reg & a Bi Reg dyed ½ a reg tack Cold dies Not - B ditto & do it several times to get of Extra Capacity sent down to the Previous dyer —

Hooper take a type that has been dipped & see if then put it on Not & see if it could dye more — also ½ rate

also dye Flat pockets Fold & slightly bent also ½ rate

Substitute for Cellulose Ricinates or ricinoleates of Pb & Zn

Precip some Cu & Ni Sulphate by Ca(OH)2 then just enough lime — Ox by Hypo, ditto and then dissolve out Nickel by Ox with Na2S2O3 & Sulphate before precip also after

Brentano send for
Philosophy of Life by Finot
Kashmir by Pitre
New Palestine the 19th Phase by Browning —
People of the Polar North by Rasmussen
~~Phonology~~ Phrenology by Spurzheim

See if we have some broken tubes of 250 c.c. with Bi left from 1 use Bi. ff — if not use Preg tube —

Look up ~~tubes~~ some bad tubes that were good but gave 200 + then died —
Charge these cold + drop heat
Resp rate + 1/2 rate Sat —

See if can't permanently prepare a good tube as Barlow prepared that when pleural it may be of 7c

Chest makes tubes go but heat + drop heat takes 7c off Colorado beat it goes back to same amount chg by chg Cold + drop heat determ. Effect might get for away + tubes by Resp. Quotient

Hooper chg 1/2 each cold
then heat to 130 for 2 hours +
then cool off ~~and~~ by ~~drop~~ Resp
see if heat drop anything —

Hall and Hooper ~~not~~ Pallagra —
7c usually decrease ~~and~~ individually
but 1 accident for something —

Hooper chg heat of drop
100 | 110 | 120 | 130
140 | 150 | 175

~~Tubercular~~ Look at book see
how 33% was

Hooper get 2 new Reg tubes from Wallis
charge reg rate each & dly Hall
1st time and how much change
readily gets in the 1st time

Put up reg tubes 21K2Li4
Chg ½ rate twice dly reg rate Hall
dd it 3 times, + Chas put in Hall
Boat —

detls Bi —

See if the groups with aluminum
wire put up — if may what have
Hooper get a reading Hall —

Hooper get float plate from Bailey Co
charge ½ rate each dly Hall —

present Ing requirements each place

Make groups of Goat 2½ daily this
group with a detls Bi flake
Chg ½ rate each 21K2Li dly Hall
dd it twice + run 6 days Hall

groups with a with Li4 flake
Chg ½ rate twice 21 Sodium Thyroxine
2 hrs each dly reg Rate Hall
twice Empty out Nal Hall soak in
2% Empty this out put in fresh
21K2Li4 + run Hall 6 days —

detls Bi flake —

also Na Equivalent ions —

Count flake with Cover + make group
½ rate chg dly reg — 21K2Li4
6 days Hall —

detls plate with Copper

John Ott for the Expt in tube
for Holland infect. index &
Rec tube + put on —

Prepare a good flake
reporter Metal, Uranium
Chromium,

also make Cancellous wooden
on 50% Lanolin dilution
to increase output —

Flake Book
Revolving rubber wiper or brush under platen - or $CaCl_2$

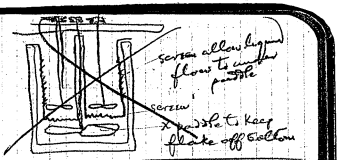
Reduce Bi on flake books use of separator —

Wet books with Conc $CaCl_2$ dry & then precip by 33% KOH to separate —

Wheels - Rosin in Benzine and Cel
Slow moving Cooled books &
then Extra Cyclone with
sticky surface, keep moving
until covered & flake again
used —

Wet books & Iodine cold
freeze or use Nitrogen
Expand freeze separate
times —

60 Hz
Shake to cyclone & throw
off by Centrifugal —



Mobil

High speed flake things not to rough punched holes or grooves and gapped like surface at high velocity — under scraping action flakes off - Cond solder chunks & Tin drop on inner surface —

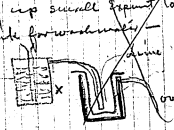
See if Engraved Graphite will exfoliate to Cu for drum & Ni — test on copper electrode in and Sn Soy also nickel — Apply to Shade & everything possible Stephen or Collier drill in Cu & Ni required to make it stick —

Use Impeller Sulphur Compound of Castor, duck, or that part. Also Amyl Acetate —

2 bubs 1/2 B. flake 1/2 10¢
2 " 1/4 " 3/4 10¢
2 1/8 " 7/8 10¢

Brooks Como Carb Sp. & dry then plunge in Bal. dump Two to separate

Rig up small Equip to mutate tank for washing



does Carb dens Sp.gr 1.504 final Try x with Carb Lyme — if it dont use Ca(OH)2 with dilute dimethone formula — if a little Ni present then use Carb Ba —

Do dry Carb from slow drum drums well clean regrind — also grinds

3 dum gross 1 flake lamp after in dump of gross

another bo 1 impro

" 2

Take a 1 to 3 oz 10¢ fl oz open a does in 1.504 to see if flake boards any odors Try new bag down drums dep by Daily same way

Tell Hallaind Chg tube various increasing amt 3 + dundy Ca(OH)2 to determine Ni_2O_3 reaction really taken place —

When new flake jig ok Have flake man come over + do his work with it + accept it — is OK —

Do Rig up Cl2 + Ca(OH)2 generator to Cu + Ni tube

get some of the exhausted flasks
Digest 1 Evap to free of
Sulfates Cu & Nitr Cent Gr
Crystals dried & ign throwing down
the Copper as oxide
also try with Lime to regenerate
the Lithium + perhaps this NaOH
only to get Li2O out by
Soxhlet

Dry. to get rid of the $CaSO_4$ in the
Nickel Hydrox + precip dry it heat
with Soda — fine clay ammon.
Nitrate $CaCO_3$ + Na_2SO_4 formed
Water washed out by Soxhlet +
$CaCO_3$ by HCl leaving the Oxide.

Important —
Take 2 tubes Change (1) to Cu
dissolve in quartz Cu(OH)2 —
Thaw (1) up to 130 for
1/2 hour Dem Cool + fuse
dissolve 1 Tube 1/2 hour
Collect 1 hour
This will prove Na_2O
reaction

Dym. put the V
shaped Recorder for
400 Ohms —

Get a powerful Eye Glass
Like to Use so can do minute
work if eyes get tired

Ask Dr M frequent cost of
Taking grease from old Tubes
+ dissolving the NaOH again
+ Reprecipt — Spoiling the flasks

See for Incandescent Lamp
gives off all rays indesirable
photographically Thin
black paper or Chem
All also in fluorescope

Weller make tube one good bellow mixed dump grave Chem flake Chem tramp —
3 Operators of 2
4 make Chemical tramp
This would give us plenty limpet to make good dump pan, look at book race thrower, once we make dove tail moving type machine grave adequate on flake

Dodge speed a Good Cast flake but bent Enough to [illegible] wall

Put tube left with 21K out to Praegs see of appearance

Dodge Be sure the 20 Sea Cu flake actually operates in industrial Chemical test many doubles

Halland chg cake 1/2 pt dia. 100
110 115 120 125
140 160 200

Give Dipt Drawing after receiving specifications of flake & Cracking Chamber

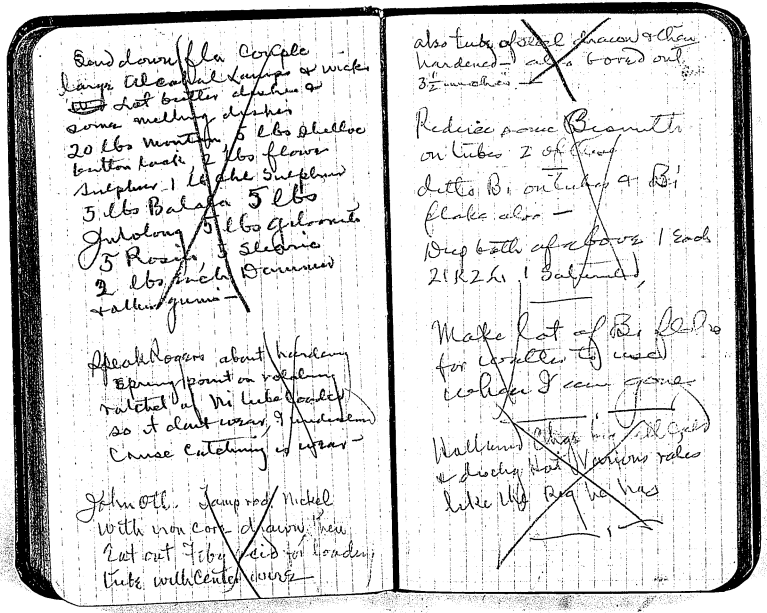
Hooper chg cold 1/2 pt Removed 33% steak 6 hours + dia cold

ditto chg 1/2 cud dry chg cold + wheel dimension 30 pinch tube by a clamp see if Vat go up

ditto

Halland chge 1/2 cold dia Cold Lake out + put in Vac few minutes get gas out put back + check again this will prove if the gas

Hooper get 4 docu cards that never been in 2 Hd, chg 1/2 Cold dry hot — ask if he ever chg cold 1/2 dry cold this dia not



Send down Fla Complete
large Alcohol Lamps & wicks
Lot Lot butter dishes &
some melting dishes
20 lbs Mentholum 5 lbs Shellac
Button hooks 2 lbs flower
Sulphur 1 Lb ahe Sulphur
5 lbs Balsam 5 lbs
Gulolong 5 lbs Gilsonite
5 Rosin 5 Stearine
2 lbs Lucky Drummond
Yellow gum —

Spatula Loaders about half dozen
Spring point on rod 9mm
Ratchet 4 Mi Tube Loaders
so it does not wear 9 mm Lead
Crimp Cutting & wear —

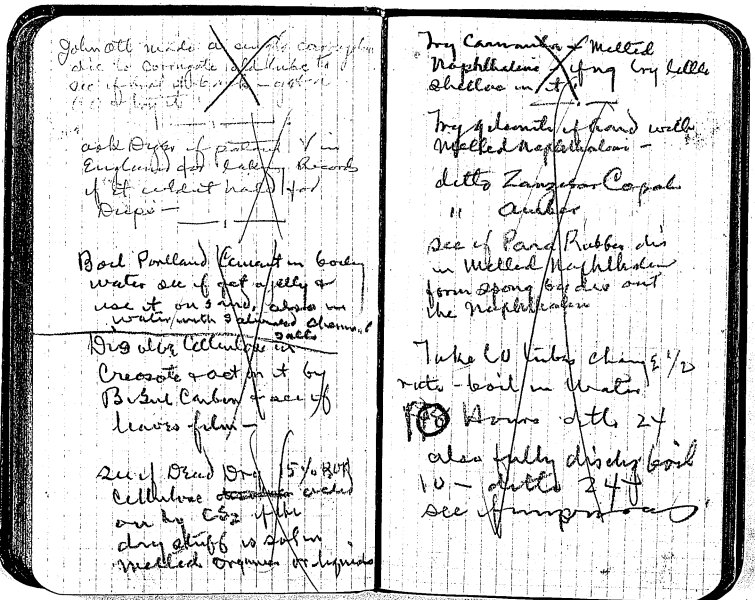
Jobnoth. Jump rod Nickel
with iron Core drawn new
Lot cut Tube dies for Loading
Tube with Center Wire —

also tube of steel drawn & then
hardened & ground & bored out
3½ inches —

Reduce powder Bismuth
on Tubes 2 of them
Ditto B1 on Tubes 4 B1
flakes also —
Dip both of above 1 Each
2 K 2 h 1 Saltpeter

Make Lot of B1 flakes
for loading of used
cartridges I can spare

Wallmus what kind of Gold
& shooting that Various rates
like the Bag he has



X152 See of Adsorption Curve of Alumina, in those Dark Colour precipitation Index, please best shown -

Viscose with fine soft Cryolalyn Substance - at 1/2 an dry + dissolves out to make Leather -

P-ser KOH & in Alcohol dried treated CS2 dried + a Solvent - Vanillin for it Organic -

Shellac melted in Naphthalen as a rapid Varnish for wood work - also Shellac + Trichloroethanol -

Shellac sol KOH dry shellac, Viscose also with a Cryolalyn + alt

Boil 1/2 doz old plates in 10% KOH for 24 hour reduce bulk - also some CO Lube in same sol -

---

Treat Leather cloth Aluminum Cleaned to Water proof Cut out as per pro -

Artificial Leather-cloth Viscose + balata Gelim Lamps - also cloth dipped in shellac & Naphthalen

Pressman make a Replas like his Cork recorder

OEZ

Theory

Why 5000 Cells cold chg works best on hot discharg

1st Prevented from contracting grs or passing as Carbid

2 Better circulation trough in Lots KOH.

3 LiOH Combin decomp + furnishes Lots alkali

4 Makes internal electrolyte better conductor

5 Heat retards LiOH dec allowing hence prevent shrinkage

6 Want alkali at Contact grs + plates, if discharge insoluble grs on further away

7 Want of alkali further — causes grs at hole finley discharge + insulate balance grs in interior heat increases circulation way — + grs discharge as a whole

1st + 7 + 6 only ones likely

Why does 1 tube on 5000 plate give only 275 Mah while another gives 1850

1st how tube has cavity at top mix loose
2 Flake feed bad, layer skipped, or dried feed empty
3 Inner surface tube dirty
4 Friction on Tamp, prevented full blow-packed loose
5 Loose Cap—cavity—grs on flake feed grs away
6 Grs on greatly washed out holes—all mix loose
7 Ring, loose
8 Grs fed To sides + one side packed hard other loose
9 Grs supplied hopper, went one side tube,
10 Tubs small + stretched Too much by Tamp—

	Chg ½ rate Cad	½ dis rate Cad	dis rate Hg	Hg rate
234		1827	1550	
235		1723	1757	
	Cad	½ rate chg Cad	dis rate Hg	Hg rate heat
230	957	1823	1720	
231	1010	1823	1890	
			1903	

	Bis	chg rate Cad	dis rate Cad	dis rate Hg	Hg rate heat
478-9		1760	1720		
		1713	1723		
		1750	1767		

Conclusions

K Cellulose — dry double decomp Sol ammono Sul Copper Nitrates forms Sul K + Cupriali ammono Cellulose Etc Etc

Many deprivations of Dipheny Combine with Cellulose

Write Messrs Hopkins
to get Cloth ex over a
pattern but also
Woollen Paper
waterproof Cloth

Try dissolving shellac in
Pyroligneous & many deposits and
also in the fatty acids –

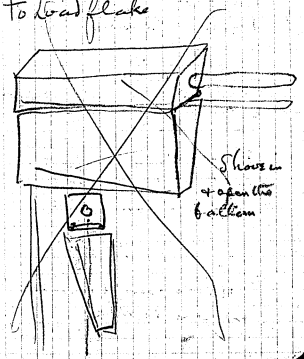
Act on shellac Isochlorophicol
Compound with Caustic Baryta
to harden surface

Harden the gooseneck shellac
by Caustic Baryta
Naphthalidan & dissolved
out –

Try Benzone & Carbon disulphide
for dis shellac

10 parts gum Collin + 5 parts gelatin
and separately dissolved in Acetic acid
& then mixed a small quantity glycerine
+ Castor oil or in the form of Gluten
glucose or honey is added to improve the
Composition – The addition of a trace
of Cadmium Chloride renders it
Proof influenced & it can be moulded
into articles of great delicacy of
elasticity Sackham Ind 1888 127

to load flakes



good Sludge acid or lime is mixed with water or iron turnings. The turned metal with the Sulphuric acid is washed out with water. The Sulphuric is acid. It and is a still hard of till it gets light brown. Naphtha Comm 60— one degree of hardness is its electro-applicable getting of resin Rubber. 1 Ton Rosin Tar gives 1/2 Ton of Solid. If it is heated to 600° it turns to 6% of original left a material dof in Naphtha "Insoluble and hard + tough as Ebonite or hard Rubber, is obtained. It Can be made of 6 common degrees of hardness by stopping distillation at different points, Can be purified Mineralds as Varnish + adhesive to metal better than gum Varnish Chem Indust 1888 304—

~~Kauri-Copal Substitute~~ Rosin
One molecule portion of Naphthalin in the presence of an acid is treated on by 2 molecules formaldehyde

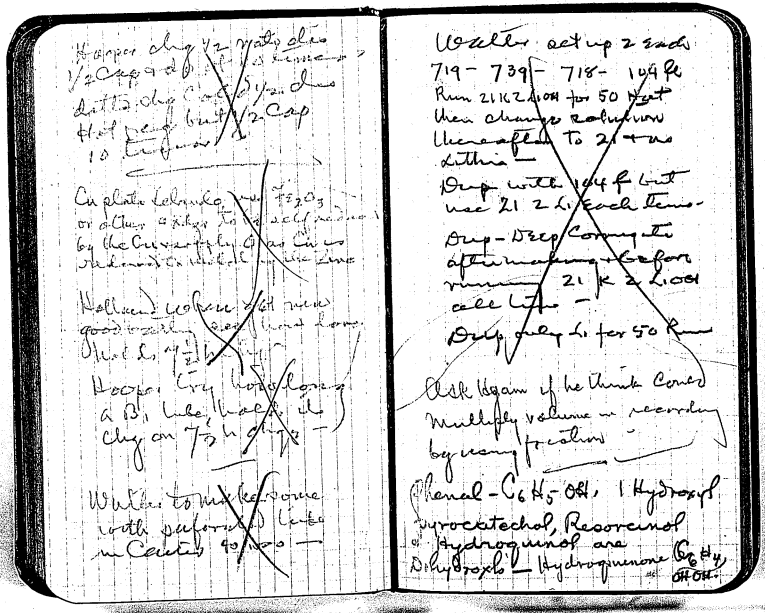
Dissolve 400 pt Manila Copal dissolved in two parts of 6% sol of Na_2CO_3 Turn Work + heat

Solution of Steam in 8 parts ROH, + 88 parts ether, the mixture ether recovered by passing steam the product filtered through + dried. USpat 898382.

Treat a fresh lint with H_2O_2 + then with acetic phos— Some oxygen taken up. Na_2O_2 Made NiO_2 by H_2O_2

Expert Tyndale Spinning Mill at Ft Wayne—

Ammonium [illegible] or magnetic Compound [illegible]



Harper clay ½ with clay
½ Cap and
Dutch clay Cap ½ clay
Hot deep but ½ Cap
10 Engine

Cu plate Solution ~~and~~ Fe_2O_3
or clay ~~a~~ like to be ~~a~~ Cu ~~and~~
by the Cu ~~and~~ Fe clay ~~and~~
Solution ~~and~~ ~~and~~

Holland Holland ~~and~~ ~~and~~
good ~~and~~ ~~and~~ ~~and~~
Use ½ ~~and~~

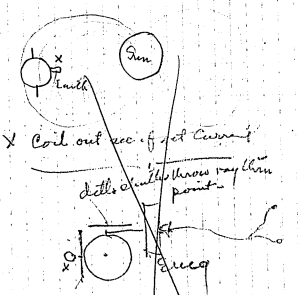
Hooper Cry ~~and~~ ~~and~~
a Bi like ~~and~~ ~~and~~
clay on Ti ~~and~~

White to mix ~~and~~
with ~~and~~ ~~and~~
in Cocktail ~~and~~

Wash set up 2 each
719 - 739 - 718 - 104 Pt
Run 21 K 2 Li OH for 50 Watt
then change solution
Use one Pt To 21 + no
Lithia —
Dep with 104 Pt but
use 21 2 Li each time.
Dep - Deep Copper to
after making before
running 21 K 2 Li OH
add Li —
Dep only 4 Li for 50 Run

Ask Wgam if he think Coned
Multiply volume in recording
by using precautions

Phenol - C_6H_5OH, Hydroxyl
Pyrocatechol, Resorcinol
or Hydroquinol are
Dihydroxyl — Hydroquinone C_6H_4 at OH OH.



for dissolving Weeded Shellac
Hexachlorbenzene MP 167 C
boils + decomp bp 288
an isomeric Hexachl Benz Melts
300 C + volatilizes before Fusion

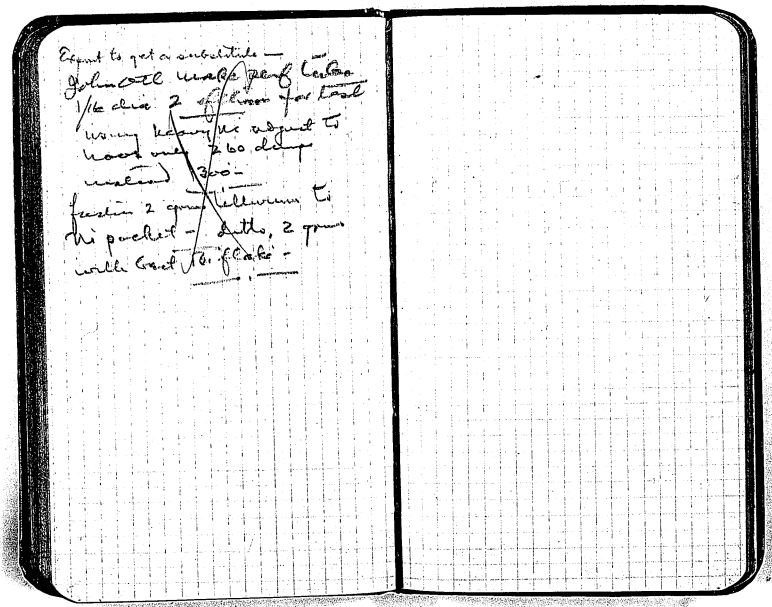
Lelande Copper combined
with Polythene

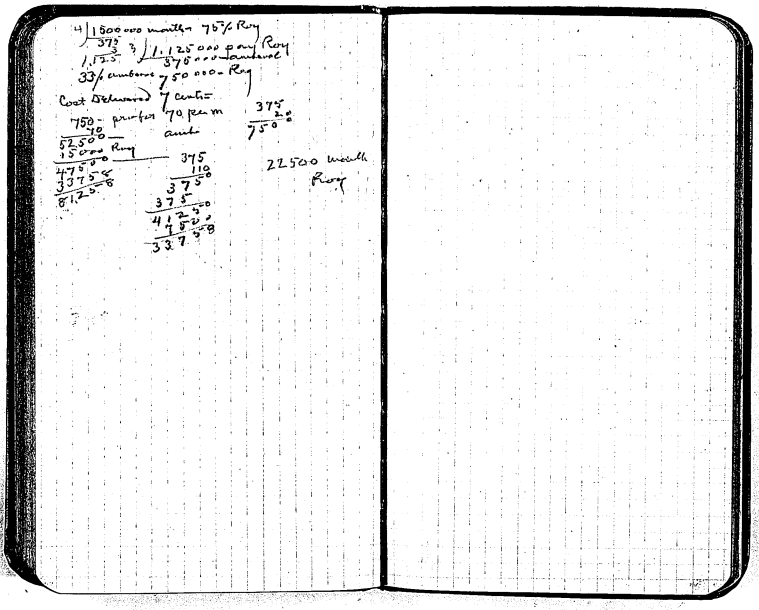
Try Measuring Diaphragm in Gallery

Record of Shellac Exposure

10 Diaphragm, grm
70 Shellac
1 grm Acetamide = ok for shellac
no cord. Keep Cast heated it will last 40 minutes
Proceed by air, day in very little affected by
heat as a record - Hemp Wax 250 @ 300 ?.

Barley Stearate Stocks formic stearic acid
mixed melts to dimpled beyond dissolves
Shellac OK it dont soften at all by
hand like Diaphragm must be worked
low temp as it tends to form bubbles
when it froths Acetamide like pellets of down
It dont stick to drink - its strange what
small amount petrol at 40 softening by
hand, but the moment try with Acetamide
the very Sensitive to heat found, even no Acetamide
should be used - OVH




4/1500 000 month 75% Roy
375
3/1 125 000 pm Roy
1 125
370 000 Landlord
33/ cumbers 750 000 Roy
Coat Delmond 7 cents
750 - printer 70 per m
amb
62 500
15 000 Roy
375
22500 month
Roy
4 875
3 375
8 125
375
375
4 875
3 375

See 1886 218 Alginic acid
fuse – just what we want –

Alginic acid extracted from sea weed soak in dilute H_2SO_4 1.06% then decompose intermediate binding material then treat gently and add alkali or alkali carb to give a thin soup – the decomposition of the seaweed takes place almost immediately – liquor is now filtered and the alginic or Tang acid is precipitated and by H_2SO_4 = calcium Sol Alg – leave filter bags 1884 – 300 – on algin

Get list of it made in Florida
Gather at Sanibal –

The Sap of the Mangrove tree is manufactured in water at ordinary temp the sap called Cativo is a semi solid burning fluid 130 Yield 4 ingr Latex Rubber – dissolves gums and resins –
Get on file –

Condensation product of phenol Tartaric a + formaldehyde

155 parts Tartaric a
160 " formaldehyde 40%
195 " phenol 100%

The tartaric is to be dissolved – the formaldehyde then added 195 lbs phenol + boil about 15 minutes to a white milky substance separates out – this is to be separated from the watery liquor – washed with boiling water to remove tartaric acid – a little ammonia – dry to melt very slowly to then ready to use –

Jnl Chem Industry 1888
Shellac p 391 – 682
1882 180-181 –

Shellac dissolves in solution borax – Sol with conc NaOH KOH, Sol not weak + Na phosphate – Sol dilute acetic + HCl acids – not – H_2SO_4
Lac Resin in Commerce Stick Lac
Seed Lac + Shellac – 1st is natural as from the bug
Shellac – Resin 90.5
Colouring matter 0.5
Wax 4
Gluten 1.8

Cement

Raw material coals on various basis

Quarry	1	60%	12°	4½ mg	
"	3	30%	20°	28.5 mg	6.7° bbf
"	Raub	10%	7°	2.5 mg	4.19 mg
Quarry	1	50%			
"	3	40%	21 Cubic		7° bbf
"	Raub	10%			4.65 mg
Quarry	1	50			
"	3	35	23.5		7.8 bbf
	Raub	15			4.00
Quarry	1	50			
"	3	30	26		8.6 bbf
	Raub	20			

gives average magnesia in Cement 3.7 @ 3.9%

Mah[illegible]

1884 Jul Soc Chem Industry p 253 good way make of Resorcin Benzaldehyde Resin like Bachelite - abstract taken from current chem Jr 5 338 340

tall Dr Q Lim Lodd is free of them Carbonate -

Ulmic compound matter into any form - used by Crists for Calcimine

80 grms Sugar in 100 cc distilled H_2O of Fellings Solution with another 100 cc to Fellerate add drop by drop 300 grams of H_2SO_4 with Constant stirring - after standing 12 hours diluted with 300 to 400 cc of water added drop by drop & Constant stirring after Cooling again slowly diluted with H_2O until 2° B then settles All sufficient Concentrating to be worked on a slab with a Rubber muller to the form of a Vac pump or in the Rhyl plastic Board then Chem Industry 1888 37 -

The length of a Column of fork which resounds to a fork is equal to one fourth of the length of the wave produced by the fork if 57 inches then a tube closed at bottom & 13 inches long – (13) 13 then a fork is 26– thus a comparison the range in 26 is 1 st 52 if tube is open both Ends then instead of 13 inch long it must be 26 or double the length

Middle Octave on the Piano

C	258.7	G	387.6
D	290.3	A	435.0
E	325.9	B C	488.2
F	345.3		517.3

C 104 under
C 52
D 46
E 41.6
F 39.4
G 34.4
A 30.8
B 27.4

C 26
D 23
E 20.6
F 19.7
G 17.2
A 15.4
B 13.6

C 13
D 11.5
E 10.3
F 9.7
G 8.6
A 7.7
B 6.8

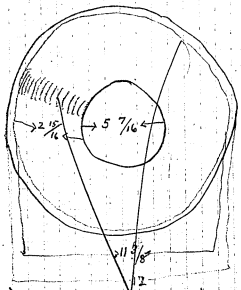
C 6.5
D 5.75
E 5.1
F 4.8
G 4.3
A 3.8
B 3.4

Closed one Ends

Open both Ends

Length between nodal points one half the length of column

Victor 12 inch Record $1.50 price

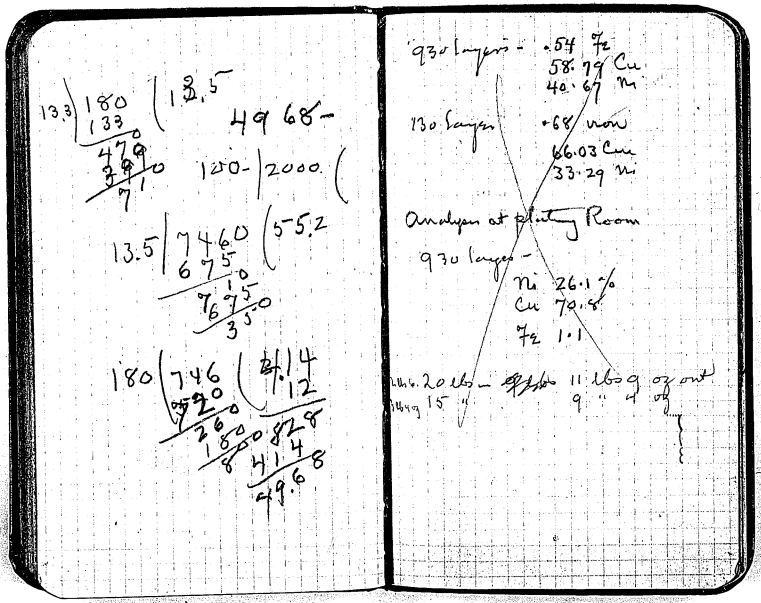


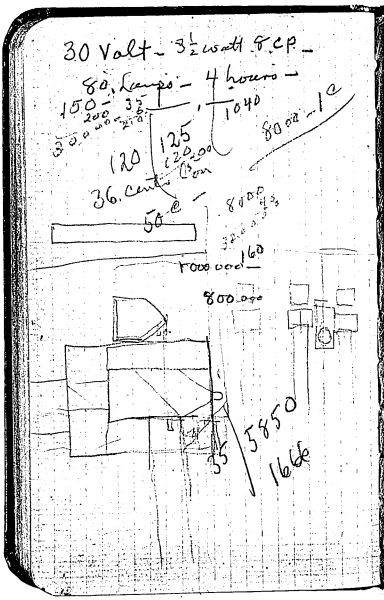
Speed 78 Rev 100 lin tracks to inch —
3/32 thick — weight 820 grms —
needle 6/1000 wide for recording —
at 78 Rev runs 3 7/10 minutes scant
speed inner circle 22.18 inches second
outside speed 46.8 inches second —
no more margin for record without recording needle made annally —
mean surface Vel 34.24 inches second

old plate Brunswick

	per gram m.o.H.	gram mfg
1 1/2	190	153
3 1/2	258	200
6	280	211
9	300	225
15	322	215
30	251	141
33 1/3	322	225

over new 4½ Record 160 Rev 14.13 circumf
37.58 inches per minute 8 3/4 minutes
Runs on 7 inches surface —


13.3 | 180 (13.5
133
470
399
71
4968-
120- | 2000. (
13.5 | 7460 (5-5.2
675
785
675
110
180 | 746 (4.14
720
260
180
800
720
80
41.4
49.6
930 lengths - .54 % Zn
58.79 Cu
40.67 Ni
130 lengths .68 now
66.03 Cu
33.29 Ni
Analysis at plating Room
930 lengths -
Ni 26.1 %
Cu 70.8
Zn 1.1
2 lbs. 20 lbs - 11 lbs 9 oz out
15 " 9 " 4 oz

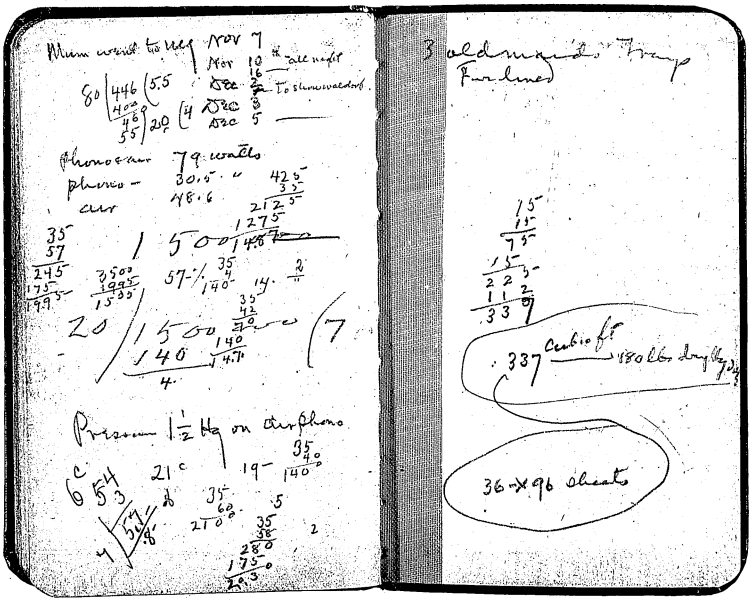


8 5
800
6800

8000
6800
1200
48

1600
120
320000
1600
192000

200
200
446 | 40000 (84
3568
432


Miami would to Hdq
Nov 7
Nov 10 " all night
Dec 16
Dec 2 To Shreveport
Dec 3
Dec 4
Dec 5
80 | 446 | 5.5
400
46
55 | 20
Phonograph 79 words
phono — 30.5 " 42.5
car 48.6 21.5
1275
1500
57½
20
1500
140
4
Pressure 1½ lbs on airphone
21c
19
35
140
60
2100
35
35
2800
1750
20.3
Baldwin Piano Co
Fairlines
15
15
75
15
2 2 3
1 1 2
3 3 0
.337 Cubic ft 150 lbs dry
36 x 96 sheets